THE NIAGARA SWAN TRAP.

BY J. H. FLEMING.

Since the great Swan disaster of March, 1908,¹ Whistling Swans (Olor columbianus) continue to settle in the upper Niagara River in spring, and floating with the current, a whole flock is sometimes caught in the rapids and swept over the Falls; once in the trap there seems slight chance of escape, though some birds survive the trip over and of these a few, by flying up the river, are able to surmount the Falls and escape. The natural route of escape down the river is barred, as the birds object to flying over the ice or under the Upper Suspension Bridge, and they usually fail to get high enough in the air to clear the Falls.

The spring of 1909 was notable at Niagara for the amount of ice that filled the gorge below the Falls leaving very little open water. I am indebted to Mr. J. S. Wallace for the following account of the losses of that spring. "On Sunday, March 28th, eleven swans were taken on the ice bridge below the Falls, Mr. Leblond getting seven of these, one of them alive and in such good condition that it is now being fed and cared for, and is becoming quite tame and appears to be practically uninjured; another of the eleven mentioned above is also alive and to all appearances uninjured.

"In addition to those taken Leblond saw five others rise from the ice bridge and fly off up the river apparently uninjured, although he does not know that these five were carried over the Falls. The day on which the birds were taken was neither foggy nor wet; so that these accidents to the birds apparently happen at any time.

"About 150 to 200 birds were seen on the river above the Falls on the 28th, and another lot of 25 or 30 were seen flying up the river one day near the end of last week (about March 30).

"The ice bridge extends from the Upper Suspension Bridge almost to the foot of the Falls, and gives the hunters very little chance to secure ducks or other game which may come over at present."

I was at Niagara Falls, Ontario, on April 15th, and saw the two living swans; one was an adult with a lemon vellow spot on the beak, and the other was not fully adult, the beak having an almost imperceptible flesh-colored spot and there was a good deal of gray in its plumage. The only note the birds uttered was a low call. I saw Mr. H. Williams and Mr. Leblond but got no further information than that in Mr. Wallace's letter. There is no record of any swans being killed in 1910, but on March 22, Mr. James Savage, of Buffalo, N. Y., saw a flock estimated at 28 in the upper river opposite Chippewa, Ont., and I quote from his letter. "You may be interested to know that there was another flock of swans on the Niagara River last March which did not go over the Falls. Mr. Broderick, the game inspector at Niagara Falls, N. Y., phoned me that there were twenty-eight of them near Navy Island and that he had approached within 100 yards of them before they took flight. I joined him in the afternoon and we had an interesting experience trying to photograph them about a mile above Goat Island. They finally mounted into the air and filed away towards Lake Ontario. It is not improbable that we saved their lives by driving them away from the place where so many of their kind have come to an untimely end."

In 1911 some swans came over the Falls, 22 were taken on March 23, most of them by Mr. Leblond. Some of these birds were seen by Mr. Wallace, but I have no note of the conditions of the weather or ice at the time. Mr. Ottomar Reinecke of Buffalo records a large flock seen on April 11, presumably in the upper river.

The 1912 toll is the heaviest yet recorded. Mr. Savage writes of the March losses as follows: "My notes show that four swans were picked up on the morning of March 18, and seven others were secured by Leblond on the morning of March 27. He tells me that on this later day, three others were obtained by other parties."

On April 6 Mr. Leblond telephoned me that a great number of swans had come over the Falls that morning, and that he had taken 70 out of the river. I went to Niagara Falls next morning and saw Mr. Leblond at the 'Maid of the Mist' landing on the Canadian side. Two men were standing on the edge of the break-

water with long poles, waiting for birds to float in, the river was open, and only a few cakes of ice coming over the Falls; there was a large mound of ice rising from the rocks below Goat Island. The outlet of the power company on the American side discharges just below the first bridge and, sending a great volume of water across the river, creates an eddy at the landing so that any bird coming down the river with the current is checked below the bridge, sent across the river, and up to the 'Maid of the Mist' landing within reach of the watchers on the breakwater. Mr. Leblond tells me that he first heard swans calling at daybreak on the 6th and they very soon began to float in. He did not say how many of these were alive. There was a slight fog on the river at daybreak. During the day he took seventy out of the river and thinks that fifty or sixty more were taken by others, probably more than 125 altogether; besides these there were four more taken today, and I saw two in the eddy and was told there were more on the shore further down. Besides these there were ten swans alive in the river below the Falls. The birds taken vesterday were at the Hotel Lafavette where Mr. H. Williams showed me sixty of Mr. Leblond's birds. He considers the total catch nearer 200 than 125. All the young birds, except one, had been picked out for eating, so the proportion of young to adults was probably one in seven. Everyone agrees that this flight was greater than the one in 1908, and that many more were taken this time in spite of there being no ice bridge; the birds I examined were less battered up than in 1908 and could not have been long in the water, as they were dry, that is the feathers were not water logged. The birds exhibited a very interesting series of eye spots, one very small adult having a solid lemon yellow spot extending forward from the eye for nearly an inch and a quarter; the color of the spots ran from lemon vellow to flesh vellow. In 1908 the spots ran from yellow to red owing, no doubt, to the ice crushing the birds had received, and the subsequent freezing.

The ten birds remaining alive on the river below the Falls were divided into two flocks, one of which was on the American side, the other on the Canadian; these I watched both from the river level and from the bank above. They were continually floating down the river with the current, and, taking wing, would fly up

towards the Horseshoe Falls, never allowing themselves to float past the 'Maid of the Mist' landing on the American side; they seemed to be afraid to pass under the Upper Suspension Bridge, though their road to safety lay down the river. Herring Gulls were continually passing underneath the bridge but it was too much for the swans to face. The swans rise easily from the water quite like the Herring Gulls, and the easy flapping of the wings on rising and folding of the wings on settling were much the same. Only one swan rose to any height above the water, possibly half way up to the brink of the Falls. The rest kept close to the level of the water, always rising against the current and flying towards the Canadian Falls, but were either unable through weakness or too frightened to rise above and escape into the upper river. One bird was using a cake of ice as a resting place, but he too, was unable to face the prospect of going under the bridge. I have no doubt that all these birds eventually grew too weak to resist the current and were drowned. The Swans arrive in the Niagara with very little food reserve and are unable to get food in the river, and weakened by their battle with the current fall easily at night into the trap set by the rapids above the Falls, as do many other species of water birds. I am told a good many Canvas-backs came over the Falls this spring, I saw one on April 7 besides several Golden-eyes that had met the same fate. Mr. Savage in a recent letter says, "It seems a pity that so many of these noble birds are destroyed every spring, but I see no way to prevent it, if they arrive during the night. If they should be seen on the waters above the Falls, arrangement might be made to drive them away."